

LISTING OF CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1-9. (Cancelled)

10. (Previously Presented) A device for connecting previously intubed ends of a body duct and a prosthesis having an essentially tubular shape, the device comprising:

    a mesh sleeve deformable by use of a balloon catheter and capable of radial expansion between a stable minimal-diameter configuration and a final after-expansion configuration that is also stable, the sleeve comprising a series of transfixion pins proximate each end, the transfixion pins being of a length sufficient to pass entirely through a wall of the body duct, and adapted to transfix a portion of the intubed ends of the body duct and the prosthesis surrounding the sleeve, the transfixion pins aligned at regular intervals and radially encircling the sleeve,

    wherein the transfixion pins have a hemostatic profile comprising a circular base section extending to a trihedral-shaped end portion whereby hemostasis is achieved at transfixion sites in the wall of the body duct created by the transfixion pins.

11. (Previously Presented) The device according to claim 10, wherein the mesh sleeve comprises an openwork steel cylinder including diamond-shaped cutouts, the transfixion pins attached to the cylinder at each end at a plurality of intersections of sides of the diamond-shaped cutouts.

12. (Previously Presented) The device according to claim 10, wherein an intermediate portion of the sleeve also comprises a plurality of intermediate transfixion pins.
13. (Previously Presented) The device according to claim 10, wherein, in expansion during fixation, a ratio of a final diameter of the sleeve to an initial diameter of the sleeve is greater than 2.
14. (Previously Presented) The device according to claim 12, wherein the series of transfixion pins on each end of the sleeve are straight, and wherein the intermediate transfixion pins are slightly curved and have points oriented toward one end or another end of the sleeve or randomly in any other direction.
15. (Previously Presented) The device according to claim 14, wherein the intermediate transfixion pins have an end portion inclined at an angle of between 0 degrees and 10 degrees.
16. (Previously Presented) The device according to claim 12, wherein the transfixion pins of the ends of the sleeve are of a reduced height in relation to a height of the intermediate transfixion pins.
17. (Previously Presented) A connecting device adapted for end-to-end anastomosis of at least two body ducts through an intermediary prosthesis having extremities intubed in end portions of the ducts, the device comprising:

a sleeve fitted at each end of the prosthesis of the intubed portions of the ducts, the sleeve comprising:

a mesh cylinder capable of radial expansion between a stable minimal-diameter configuration and a final after-expansion configuration that is also stable, and

a series of transfixion pins on each end of the cylinder, the transfixion pins being of a length sufficient to pass entirely through a wall of the body duct, and adapted to transfix a portion of the intubed ends of the body duct and the prosthesis surrounding the sleeve, the transfixion pins aligned at regular intervals and radially encircling the cylinder, wherein the transfixion pins have a hemostatic profile comprising a circular base section extending to a trihedral-shaped end portion whereby hemostasis is achieved at transfixion sites in the wall of the body duct created by the transfixion pins.

18. (Previously Presented) A method for setting in place connecting devices adapted for end-to-end anastomosis of at least two body ducts through an intermediary prosthesis having extremities intubed in end portions of the ducts, comprising the steps of:

intubing a first end of the prosthesis in an extremity of a first body duct;  
setting in place a first connecting device by introducing an inflatable balloon catheter into the prosthesis through an end of the prosthesis, the first connecting device comprising:

a mesh sleeve capable of radial expansion between a stable minimal-diameter configuration and a final after-expansion configuration that is also stable, and

a series of transfixion pins on each end of the sleeve, the transfixion pins being of a length sufficient to pass entirely through a wall of the body duct, and adapted to transfix the portion of the intubed ends of the body duct and the prosthesis surrounding the sleeve, the transfixion pins aligned at regular intervals and radially encircling the sleeve, wherein the transfixion pins have a hemostatic profile comprising a circular base section extending to a trihedral-shaped end portion whereby hemostasis is achieved at transfixion sites in the wall of the body duct created by the transfixion pins;

intubing a second end of the prosthesis in a second body duct; and  
setting in place a second connecting device by the catheter introduced into the prosthesis through an orifice in the prosthesis that is subsequently re-closed, the second connecting device being similar to the first connecting device.

19. (Previously Presented) The device according to claim 11, wherein the transfixion pins are attached to the cylinder by soldering.

20. (Previously Presented) The device according to claim 11, wherein the transfixion pins are attached to the cylinder by gluing.

21. (Previously Presented) The device according to claim 15, wherein the end portion of the intermediate transfixion pins is inclined at an angle of about 5 degrees.